blurred vision, other anticholinergic effects, or headache. Nausea persisted for three days after the overdose but had not been mentioned during treatment. This case provides further evidence of the safety of zimelidine in overdose.

[Sales of zimelidine in all countries were discontinued by Astra Pharmaceuticals in September 1983 because of the company's concern about reports of serious neurological side effects including the Guillain Barré syndrome.]


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Allergy to cows' milk presenting as chronic constipation

Chronic constipation is common in early childhood. An organic cause may be shown in some children with it, and others show evidence of emotional disturbance. In most children, however, there are no obvious explanations for constipation. Allergy to cows' milk is a transient condition affecting mainly infants and young children who usually present with diarrhoea, vomiting, abdominal pain, and often a history of failure to thrive.1,2 Many other symptoms have been attributed to allergy to cows' milk, often with little objective evidence to support this.

We report on a child who was found to be allergic to cows' milk but who presented with constipation as the sole symptom.

Case report

A 34 month old boy had presented at the age of 17 months with a history of constipation of about one year's duration. He had been bottle fed from birth. He did not have a history of asthma or eczema. An older sister, his mother, and his maternal grandmother were intolerant of cows' milk, vomiting after drinking it. During early infancy he had had frequent "colic" but apparently normal stools. At 3 months he had had acute adenovirus gastroenteritis and his recovery had been delayed owing to persistent diarrhoea. He had been maintained on a protein hydrolysate feed (Nutramigen) for a month before a cows' milk formula was reintroduced.

At the age of 5-6 months his stools had become hard and he developed severe constipation, opening his bowels as seldom as twice in five weeks. A rectal biopsy showed normal ganglion cells and an abundance of eosinophils. He showed little response to treatment with a high fibre diet, large doses of senna, diocetyl sodium sulphasuccinate, and lactulose. He was admitted to hospital for management with enemas on two occasions but rapidly relapsed after discharge despite continuing laxative treatment.

Aged 2.7 years he was started on a diet free of cows' milk and milk products. Within one week he had normal stools and a daily bowel action. The laxatives were stopped. Over a period of four months he had three milk challenges. On each occasion within 12 hours of drinking 200 ml milk he became flushed, febrile, and miserable and complained of abdominal pain. His stools became hard and very small. After two days he had no further bowel actions. On withdrawal of cows' milk from the diet his symptoms rapidly disappeared with a return of normal stool frequency and consistency over the next 48 hours. Investigations showed a normal haemoglobin concentration and eosinophil count in the peripheral blood. Total serum IgE concentration was normal, and a specific IgE radioallergosorbent test for milk protein yielded weakly positive results.

Comment

There are no definitive tests for allergy to cows' milk, but it is accepted that diagnosis is best made by withdrawal of milk and challenge, preferably on more than one occasion. The diagnostic criteria of Goldman et al3 for allergy to cows' milk require that (1) symptoms subsist after withdrawal of milk from the diet, (2) symptoms recur within 48 hours after challenge with milk, and (3) these reactions occur with three such challenges and have similar onset, duration, and clinical features. Many physicians nowadays might regard these criteria as too strict, but few would doubt the existence of allergy to cows' milk in a child in whom they were fulfilled. Our patient's response fully satisfied these strict criteria.

Chronic constipation as a primary clinical manifestation of allergy to cows' milk is probably uncommon. Clinin's study of 206 infants with allergy to cows' milk showed 10 (6%) who had constipation that was not responsive to any laxatives and in whom normal stools followed complete withdrawal of cows' milk from the diet.4 No further information, however, was given about either any associated clinical features or the clinical response on subsequent challenges and withdrawals of milk. Buissere,5 using Goldman's criteria to diagnose allergy to cows' milk, noted that, in addition to vomiting and abdominal pain, constipation was more common than diarrhoea as a nonspecific symptom, although most of the infants also had either asthma or eczema. None of these patients, however, presented with constipation as the primary feature of their disease, and in all of them allergy to cows' milk was diagnosed on other grounds.

Our patient had chronic constipation unresponsive to laxatives. Regular bowel action was established, however, after cows' milk and milk products were withdrawn from the diet. We wonder how many young children with unexplained constipation not entirely responsive to usual treatment may be allergic to cows' milk.


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Immune complex nephritis complicating miliary tuberculosis

Chronic caseous destruction and fibrosis are the pathological processes that usually affect the renal tract in tuberculosis. Recently, three immigrants with renal failure and pulmonary tuberculosis have been reported in whom urography showed none of the features of classical renal tuberculosis1; renal biopsy showed diffuse interstitial nephritis with caseating granulomas.

Since the advent of immunofluorescence and electron microscopic examination of renal biopsy specimens there do not appear to have been any reports of an association between tuberculosis and immune complex disease.